

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A spindle motor comprising:

a chassis;

a rotor magnet;

a rotor-side bearing member;

a stator-side bearing member;

a rotor hub having a hollow circular hole and disposed to the center of rotation;

a support column secured to the chassis; and

a stator armature having a wound coil and disposed to the chassis in a position confronting the rotor magnet[[,]];:

wherein the support column is disposed to the chassis in a manner to pass through the hollow circular opening in the rotor hub[[,]];:

~~the rotor-side bearing member forms a bearing for supporting the rotor hub in combination with a stator-side bearing member disposed to the chassis, and~~

~~the bearing is disposed to a position of a certain distance from the support column.~~

wherein the chassis has a protruding portion in an area around the cylindrical portion of the support column, and a height of the protruding portion is greater than a height of the stator-side bearing member; and

wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub.

2. (Currently Amended) The spindle motor according to claim 1, wherein the ~~bearing comprises a fluid bearing~~ comprises provided with:

a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member, and

a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.

3. (Currently Amended) The spindle motor according to any of claim 1 and

claim 2 19, wherein the rotor hub and the rotor-side bearing member are made of a same material and formed integrally.

4. (Currently Amended) The spindle motor ac cording to any of claim 1 and ~~through claim-3~~ 19, wherein the support column retaining the stator-side bearing member comprises a flat portion and a cylindrical portion, and the flat portion and the cylindrical portion are made of separate ~~materials~~ pieces and ~~formed~~ assembled into a unit integrally.

5. (Currently Amended) The spindle moto r according to any of claim 1 and ~~through claim 3~~ 19, wherein the support column retaining the stator-side bearing member comprises only a cylindrical portion.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) The spindle motor ac cording to claim 6 1, wherein the protruding portion of the chassis is formed into a shape that a part of the protruding portion extending beyond an upper end of the stator-side bearing member is tapered so that a diameter of the part becomes smaller the more the protruding portion extends above the upper end of the bearing member.

9. (Currently Amended) The spindle motor a ccording to any of claim 1 and ~~through claim-8~~ 19, wherein the support column has a threaded portion in a tip end of the cylindrical portion.

10. (Currently Amended) A disk drive unit provided with a spindle motor, the spindle motor comprising:

a chassis;

a rotor magnet;

a rotor-side bearing member;

a stator-side bearing member;

a rotor hub having a hollow circular hole and disposed to the center of rotation;

a support column secured to the chassis; and

a stator having a wound coil and disposed to the chassis in a position confronting the rotor magnet[[,]];

wherein the support column is disposed to the chassis in a manner to pass through the hollow circular opening in the rotor hub[[,]];

~~the rotor-side bearing member forms a bearing for supporting the rotor hub in combination with a stator-side bearing member disposed to the chassis; and~~

~~the bearing is disposed to a position of a certain distance from the support column;~~
the disk drive unit further comprising:

a disk having a recording layer formed on a surface thereof, and disposed to an upper surface of a flange portion of the rotor hub in the spindle motor;

a cover having an abutment portion in abutment on one of tip ends of the cylindrical portion constituting the support column in the spindle motor;

a signal conversion element for recording and reproducing data in the recording layer formed on the disk; and

a swing member means for positioning the signal conversion element to a predetermined tracking position[[,]];

wherein the chassis has a protruding portion in an area around the cylindrical portion of the support column, and a height of the protruding portion is greater than a height of the stator-side bearing member; and

wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub.

11. (Currently Amended) The disk drive unit according to any of claim 10 and claim 21, wherein:

the support column of the spindle motor has a threaded portion in a tip end of the cylindrical portion;

the cover is provided with a through hole in a position of the abutment portion corresponding to the threaded portion of the support column; and

the cover is held in abutment on and secured to the tip end of the cylindrical portion of the support column with a screw in the through hole of the cover.

12. (Currently Amended) The disk drive unit according to ~~any of claim 10,~~
wherein the fluid bearing comprises and claim 11 comprising a fluid bearing provided with:

a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member~~[[,]]~~; and

a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.

13. (Currently amended) The disk drive unit according to any of claim 10 and through claim 12 21, wherein the rotor hub and the rotor-side bearing member are made of a same material and formed integrally.

14. (Currently Amended) The disk drive unit according to any of claim 10 and through claim 13 21, wherein the support column retaining the stator-side bearing member comprises a flat portion and a cylindrical portion, and the flat portion and the cylindrical portion are made of separate pieces materials and formed integrally assembled into a unit.

15. (Currently Amended) The disk drive unit according to any of claim 10 and through 13 21, wherein the support column retaining the stator-side bearing member comprises only a cylindrical portion.

16. (Canceled)

17. (Canceled)

18. (Currently Amended) The disk drive unit according to claim ~~16~~ 10, wherein the protruding portion of the chassis is formed into a shape that a part of the protruding portion extending beyond an upper end of the stator-side bearing member is tapered so that a diameter of the part becomes smaller the more the protruding portion extends above the upper end of the bearing member.

19. (New) A spindle motor comprising:

a chassis;

a rotor magnet;

a rotor-side bearing member;

a stator-side bearing member;
a rotor hub having a hollow circular hole and disposed to the center of rotation;
a support column secured to the chassis; and
a stator armature having a wound coil and disposed to the chassis in a position confronting the rotor magnet;
wherein the support column is disposed to the chassis in a manner to pass through the hollow circular opening in the rotor hub;
wherein the rotor hub has a protruding portion extending in an area located between the rotor-side bearing member and the rotor magnet; and
wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub,

20. (New) The spindle motor according to claim 19, wherein the fluid bearing comprises:
a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member, and
a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.

21. (New) A disk drive unit provided with a spindle motor, the spindle motor comprising:
a chassis;
a rotor magnet;
a rotor-side bearing member;
a stator-side bearing member;
a rotor hub having a hollow circular hole and disposed to the center of rotation;
a support column secured to the chassis; and
a stator having a wound coil and disposed to the chassis in a position confronting the rotor magnet;
wherein the support column is disposed to the chassis in a manner to pass through the hollow circular opening in the rotor hub;

the disk drive unit further comprising:

a disk having a recording layer formed on a surface thereof, and disposed to an upper surface of a flange portion of the rotor hub in the spindle motor;

a cover having an abutment portion in abutment on one of tip ends of the cylindrical portion constituting the support column in the spindle motor;

a signal conversion element for recording and reproducing data in the recording layer formed on the disk; and

a swing member for positioning the signal conversion element to a predetermined tracking position;

wherein the rotor hub has a protruding portion extending in an area located between the rotor-side bearing member and the rotor magnet; and

wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub.

22. (New) The disk drive unit according to claim 21, wherein the fluid bearing comprises:

a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member; and

a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.